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# **Digital Scholarly Editions as Interfaces**

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Satz: Roman Bleier und Lua<sub>T</sub><sub>E</sub><sub>X</sub>

# The Editor in the Interface: Guiding the User through Texts and Images

Wout Dillen

## Abstract

In a way, the Graphical User Interface (GUI) can be regarded as the digital scholarly edition's new paratext: not exactly part of the edited text itself, it still has an undeniable impact on the way the user reads and understands the edition. This makes the interface an important place for the editor to convey her views on the materials the edition has to offer. Therefore, this paper focusses on the role the editor of the digital scholarly edition plays in guiding the user through its data, and helping her shape her interpretation of those data – arguing all the while that it is exactly in the interface that these interactions take place. Starting from Mats Dahlström's proposal for digital scholarly editors to leave *Ariadne threads* to guide their users through the textual labyrinth of their digital scholarly editions, this paper suggests that Dante's *Divine Comedy* might make a more appropriate allegory for the editorial model. Taking a cue from Dante's 'Virgil' character, the editor may prefer to remain in the background of the edition, encouraging the user to be fully immersed in the edition's data – only to quietly step more and more in the foreground as the user moves deeper and deeper into the edition and could arguably use more explicit guidance. After taking a more theoretical approach to this topic, the paper illustrates the kind of editorial decisions that may be involved while designing a digital scholarly edition by taking the *Beckett Digital Manuscript Project* (BDMP) as a case study. Walking the reader through the many tools and functionalities the BDMP has to offer, this paper explains how this editorial model would apply to the project, focusing especially on the changes the edition's graphical user interface underwent as it was redesigned in November 2015.

## 1 Data or interface?

In her opening keynote to the *Digital Scholarly Editions as Interfaces*<sup>1</sup> conference, Dot Porter wore a T-shirt that read “data over interface”.<sup>2</sup> Quite the controversial piece of clothing to wear at a conference about interfaces, she used its slogan to argue that for the sake of the research, the data should always come first. That interfaces should not put limits on the data, and that we should be careful not to distort the data through the interfaces we build around them. A compelling point that helped set the right critical tone for the conference, and was echoed or adapted in many of the subsequent conference papers. And indeed, as a researcher it is difficult for me to disagree with this point, because I know that it is precisely through analysing the data and extracting the relevant information from those data that I can do my research. Without these data, there are no editions – be they digital or in print. The same cannot be said about interfaces.

Nevertheless, experience has taught me that sometimes it is by developing a Graphical User Interface around the data, by thinking critically about new ways of trying to present the data, and to present our interpretation of those data, that we can come to new insights about the materials we are studying. In those cases, it is exactly by reconfiguring our materials in new ways, by constructing an interface around those materials, by interacting with other people, and by seeing how the interface shapes *their* interpretation of the data, that we keep developing our own interpretations of those materials. This point was also made in Richard Hadden’s talk *More than a Pretty Picture*, when he asserted “you process your data, you visualise it, you learn from your visualization”. And indeed: data visualisations or interfaces are not the endpoints of our research, they are just the beginning. We use them to try to make a point about our data, and when that point does not come across in the way we wanted it to, we can either reconfigure our presentation of the data, or try to run with it and reconfigure our interpretation of the data instead. If we are lucky, we can do both, and make two equally valid and valuable arguments about our data instead of one.

At the *Digital Humanities Summer School 2013* organised at the KU Leuven in Belgium, Edward Vanhoutte suggested that the act of transcribing source materials into TEI-XML is an extreme form of close reading that almost always teaches us something new about the sources we are transcribing (Vanhoutte and Van den Brande). As a digital scholarly editor I wholeheartedly agree with this claim, and would go as

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<sup>1</sup> As the reader of this volume will already have learnt, the title of the *Digital Scholarly Editions as Interfaces* conference in Graz left it to the presenters to decide whether they wanted to use their talks to discuss digital scholarly editions as Graphical User Interfaces (GUIs), as Application Programming Interfaces (APIs), or both. As will be pointed out below, this paper will only focus on the former: a user oriented interface designed to facilitate human-computer interaction that will (in our case) help the user navigate the contents of the edition in question.

<sup>2</sup> For the full text of the keynote see (Porter). This blogpost includes a picture of the T-shirt.

far as to extend it to include the development of Graphical User Interfaces as well. Much like transcribing, the task of developing an interface around these interfaces involves a specific and precise type of interaction with our data that may influence our interpretation of those data, and perhaps even propel our research further in new, unforeseen ways. By developing interfaces and playing with them by finding new ways to show the user, or even ourselves, what we want to say about our materials, we may learn more about those materials, adjust our interpretations, and strengthen our arguments. We should not underestimate the impact that the creative aspect of developing interfaces around our data has on our growing understanding of those materials. Linking this thread back to Porter's opening keynote, I would argue that even from a research point of view an argument could just as well be made for the slogan *interface over data*. Continuing on that thread, this paper will focus on the role the editor of the digital scholarly edition (DSE) plays in guiding the user through its data and helping her shape her interpretation of those data – arguing all the while that it is exactly in the interface that these interactions take place.

## 2 The editor as guide

In the digital age with its abundance of information, one of the most important roles of the scholarly editor is that of a guide: someone who can help the user grasp the full complexity of the materials the digital scholarly edition has to offer. A similar case was already made in the year 2000 by Mats Dahlström, in a paper titled *Drowning by Versions*, where he argued that a DSE “is intended to fulfil two perhaps contradictory user demands” (§4). On the one hand (1), there is a desire to give the user full reign over the edition's materials, and to provide her with the necessary tools to formulate her own interpretation about the many ways in which its different documents relate to one another. On the other hand (2), there is a strong urge to make full use of the editor's academic expertise and her experience with the materials in question, and to offer the user a first interpretation of these documents.<sup>3</sup>

Acknowledging that most editors will try to satisfy both demands to the best of their abilities, Dahlström nevertheless expressed his concern that by spending too much effort on the first objective, the editor runs the risk of neglecting the second. According to Dahlström, print editions in general focus more on the editorial aspects (1), while digital editions focus more on the archival aspects (2). And indeed, it can be argued that print editions tend to bury rivalling variants deep in a critical apparatus; while digital editions tend to bury the user in a seemingly endless collection of documents.

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<sup>3</sup> Now nearly 17 years old, this paper still seems quite relevant today, as Paul Eggert made a similar observation when he proposed a dichotomy between archival ('1') versus editorial ('2') impulses in digital scholarly editing in his keynote to the joint *DiXit 3 / ESTS 2016* conference in Antwerp (October 2016).

This is partly due to the medium, of course: the print medium is text-oriented, linear, and has a limited amount of space that forces the editor to be concise; while the digital medium is more visual, multidimensional, and virtually eliminates any spatial concerns. We *can* show the user all these beautiful documents in their full glory and high resolutions. So why *wouldn't* we? And surely offering the user the possibility to interpret the materials on her own can be quite tempting, as it absolves the editor to a certain extent from making difficult choices and taking responsibility for them.

But of course, for textual scholarship the mere digitisation of these source materials is not enough, in the same way that offering the user an unorganised pile of minimally digitised documents is not the same thing as making a digital scholarly edition. To be called a *digital* scholarly edition, the edition needs to be a *scholarly* edition first: it needs to be the result of textual scholarship, and make some sort of argument about the materials it holds.<sup>4</sup> And indeed, it is important to keep in mind that the idea of a completely objective archive of textual documents is a utopia: creating an archive or edition will inevitably involve some sort of interpretation – an effort that already starts with the selection of the materials. That is why it is crucial that the editor acknowledges the part she plays in the development of the edition, and that she takes responsibility for her interpretation in the presentation of the materials – what Elena Pierazzo called “accountability” in her recent monograph *Digital Scholarly Editing: Theories, Models and Methods* (7). This makes the second objective at least as important for the edition as the first.

When he describes a possible solution for this problem – for allowing the two objectives to exist side by side – Dahlström recalls a well-known scene in classical mythology. Portraying the archive of documents in a digital scholarly edition as a textual labyrinth, he encourages the editor to act like a contemporary Ariadne, offering a number of distinct threads that can lead the user through the maze without getting lost. An apt metaphor, I think, that already calls attention to the need for the editor to incorporate some sort of guiding principle into the edition, to help the user find her way. Still, as editors, I don't think any of us like to think of our editions as labyrinths. The implication here is that, as a textual labyrinth, the edition would be overly complex and incredibly difficult to navigate. During my work on the *Beckett Digital Manuscript Project* as a Ph.D. student at the University of Antwerp, another metaphor suggested itself. Rather than the Greek myth, perhaps it is better to look

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<sup>4</sup> The principle that digital scholarly editions should strive to be scholarly editions first is not new: it has featured in definitions of digital scholarly editions at least from 1998 (Vanhouette 107) to 2016 (Sahle 26; 33). Similarly, nowadays the notion that an edition makes a scholarly argument about the materials it encompasses is also commonplace (see for instance Eggert 2013; Andrews and van Zundert 2016). In *Reading or Using a Digital Edition? Reader Roles in Scholarly Editions*, Krista Stinne Greve Rassmussen referred to this argument as “a statement that can be attributed to the edition” (124); and in *Maschinenlesbar–menschenslesbar. Über die grundlegende Ausrichtung der Edition*, Inga Hanna Ralle called it an “editorial narrative” (152; see also below).

at the edition and its relation to the user and the editor in terms of Dante's *Divine Comedy*.

At the very start of the poem's first canto, Dante's homonymous protagonist is scared out of his wits as he finds himself lost in a wild, impenetrable forest, with no way back. After dwelling aimlessly in the woods for a while, a faint voice reaches him in the dark, hoarse from long silence. It is Virgil who comes to Dante's rescue, guiding him through the forest and further still, all the while pointing out the many wonders that are hidden underneath the surface. If intertextual references are any indication, this must have been Beckett's favourite scene from the *Divine Comedy*. As Dirk Van Hulle has pointed out, allusions to the tercet (and especially its last line: "chi per lungo silenzio pareo fioco") recur time and time again throughout Beckett's works and notebooks (*Making of Samuel Beckett's Stirring Still*, 93; *Manuscript Genetics*, 148–156). This line suggests that because Virgil had been silent for so long – for centuries even – when he finally started speaking again to attract Dante's attention, his voice was hoarse, or faint (fioco). A source of inspiration for Beckett, it might serve as a more appropriate allegory for the editorial model behind the digital scholarly edition that is being developed around his works.

A key difference between the two mythologies is that while Ariadne had taken the necessary precautions before sending her lover Theseus into the labyrinth to slay the Minotaur, Dante, on the other hand, had set off on his trial absentmindedly and unprepared – so it was perhaps no wonder that he lost his way so easily. But when we are dealing with digital scholarly editions, perhaps getting lost is not always a bad thing. For an editor, the greatest compliment she can receive is probably when a user is so entranced by the curated documents that she loses herself in the materials completely. As editors, we should not be afraid to give up control and let our users roam free. It is their edition as much as it is our own, and you never know when a serendipitous discovery (like the mystical animals Dante encounters before meeting Virgil) may lead to an unexpected breakthrough or a new hypothesis about the edition's materials. At the same time, it is important that at the moment when the user *feels* lost, she can rely on the editor's experience to let her know where she is, and to lead the way to where she wants to go. Because on a computer, unlike in a labyrinth or enchanted woods, if things get too difficult, the easiest way out is still to close the application and move on – a scenario that the editor will want to avoid at all costs. Instead, this is precisely the moment when the edition should draw the user in further, encourage her to accept the editor's guidance and trust her expertise.

While this Dantesque simile may seem like wishful thinking, I think it can be a useful allegory to keep in mind while developing a digital scholarly edition. If grabbing the user's attention can already form a considerable challenge in itself, holding it is a much more difficult task still. If we want to allow for this kind of fruitful interaction between the user and the edition, I think the editor will need to

walk on a thin line between being *absent* on the one hand, and *too present* on the other. Like Virgil, the editor needs to be silent long enough to allow the user to be fully immersed in the edition, but eloquent enough to persuade the user to keep going when help is needed. To achieve this, the editor's voice has to be *faint* ('fiasco'), to appear in front of the user's eyes only when that user finds herself out of her depth. And I would argue this is exactly where the edition's interface comes into play.

### 3 The editor in the interface

So this interface, is it the editor's best friend, or her worst enemy? At the *Digital Scholarly Editions as Interfaces* conference, arguments were presented in support of either of these positions. The staunchest critic of the interfaces of digital scholarly editions was probably Peter Robinson, whose paper argued *Why Interfaces Do Not and Should Not Matter for Scholarly Digital Editions*. This point of view links back to a paper Robinson published in 2003 titled *Where We Are With Electronic Scholarly Editions, and Where We Want to Be*, in which he implored editors to put their data on the internet "in a manner that allows it to be appropriated by others, augmented, corrected, infinitely reshaped". As part of his plea for scholarly editors to give up control and open their edition's data up to other researchers and developers, Robinson here argues that it would be more useful to offer an API (Application Programming Interface) for the edition than to design a single, fixed interface around the materials – because this makes it easier for programmers and developers to reuse the edition's data. And indeed: it is important to keep in mind that while the interface allows the user to interact with the data through the tools that it offers, it also inevitably limits this interaction through the tools it omits. Nevertheless, this approach is strongly targeted towards a specific type of user: the *meta-user*, if you will.

In our paper *Digital Scholarly Editing within the Boundaries of Copyright Restrictions*, Vincent Neyt and I proposed a distinction between three types of users: *basic users* who stumble on the edition out of general interest and may be satisfied with simple browsing functionalities; *advanced users* who want to research the materials the digital scholarly edition has to offer, and access them in non-linear ways; and *meta-users* who want to use the edition's data for their own research, and query those data in new, unforeseen ways (Dillen and Neyt 787). This typology is similar to Krista Stinne Greve Rasmussen's proposed distinction between three different reader roles for digital scholarly editions: *reader*, *user*, and *co-worker*. And indeed: her concept of a *reader* (who is "mainly interested in scholarly editions as reliable academic versions of literary works") completely overlaps with our *basic user*; and her concept of *user* (who reads or *uses* the edition's information in a more interactive and intertextual way) overlaps with our *advanced user* (Rasmussen 127).



Having read Rasmussen's paper, in these two cases I now actually prefer her apt terminology over our own. But it seems to me that there is an unsurmountable difference between her *co-worker* and our *meta-user* that leads me to believe that the latter might complement Rasmussen's typology nicely, possibly in the form of a fourth reader role. For Rasmussen, the term *co-worker* "signals that [...] the reader in this role is likely to take part in the editorial work at some level" and that her contribution "forms a genuine part of the edition" (127). This implies that the *co-worker*'s contributions are always considered in function of the original edition. Using the same (type of) tools that are at the disposal of the edition's editorial team, the *co-worker*'s contributions would ideally eventually be integrated into the existing scholarly edition.<sup>5</sup> The *meta-user*, on the other hand, is a user who wants to re-use the edition's data for her own purposes: to query or augment those data with tools that are not available to the original editorial team, and possibly to publish the results of this endeavour in the form of a new, independent scholarly edition.

I believe it is exactly this kind of transformation and appropriation of editorial data that Robinson sought to encourage (or at least cater to) in *Where We Are With Electronic Scholarly Editions*. Not bound by the limitations of the original edition's framework, the *meta-user* would be able to let her creativity roam free and build something new by re-using the edition's raw materials. And indeed, for these users, the edition's interface will often act as a *barrier*, rather than as a *gateway*, between user and data. In view of this paper's discussion, however, I would argue that while this is of course an important user-base to keep in mind when developing a scholarly digital edition, it does not constitute the edition's only users – probably not even its primary users.

If a (digital) scholarly edition can be interpreted as an argument about the materials it encompasses – as Tara Andrews and Joris van Zundert also proposed in their talk *What Are You Trying to Say? The Interface as an Integral Element of Argument* – the primary target audience for the edition will be the scholars the edition is trying to engage. This means that the users the editor will try to cater to first are not *meta-users* such as developers and programmers, but rather an edition's (*advanced*) *users*: (textual) scholars who already have some degree of familiarity with the material (or with *similar* materials), and now want to read, interact with, and perhaps even assess the edition's edited texts (and the editorial decisions that were made to constitute that text). These are users who are especially interested in learning more about the content of, and links between, the edition's individual documents, and about the implications of the editor's interpretation of those materials for our broader understanding of the text.

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<sup>5</sup> Perhaps *co-editor* (or even just *editor*) would be a more straightforward name for this reader role than *co-worker*.

For those users – who will not necessarily know how to deal with raw data or an API – the interface will be a friend, rather than an enemy: a means of interacting with the materials, and of assessing the editor's interpretation of those materials. This is what makes (web) design such an important aspect of the digital scholarly editing process: the interface is the first thing the user will notice, and it will determine the way in which she will read the rest of the edition – if indeed at all. That is why the edition will ideally need an interface that is both attractive and intuitive: attractive because it needs to draw the user in, and intuitive because it needs to facilitate rather than hinder the user's reading experience.

Intuitiveness really is key here; a good interface for a digital scholarly edition guides the user to the documents she wants to read without drawing too much attention to itself. Features and tools that are not self-explanatory will have to be explained elsewhere, and learning how to use them is an investment the user is not necessarily willing to make. While writing elaborate documentations and tutorials is an indispensable part of digital scholarly editing that can help more experienced users unlock the edition's full potential, users may want to play around with the materials first, *before* deciding whether or not to read the edition's complete user manual. For these users, it is important that the edition's most basic and distinctive features are readily available exactly where they expect to find them. This can range from project-specific functionality questions such as how to switch between different document-oriented or text-oriented views, to more basic lay-outing concerns like finding the best place for a search bar, or deciding which icons to use for more common functionalities. For these questions, I would argue that the basic principle holds: the less time the user spends trying to figure out how the edition works, the more time she will be able to spend working with the edition.

At the same time, it is important to keep in mind that while making these design decisions, the editor is to some extent already steering the user's interpretation of the edition's contents. In this respect, the interface can be regarded as a second layer of editorial interpretation: after offering an interpretation of the edition's documents by transcribing them, the editor offers the user an interpretation of her transcriptions when she decides on how to present them. Stronger still, it can be argued that the visualisation itself is at least as important for conveying the editor's interpretation as the transcription on which it is based: as the main text the average (non-TEI proficient) user will come into contact with, the interface displays the edited text in a way that determines how the user will read and interpret the edition's documents. The same goes for the edition's navigation, lay-out, and its selection of tools. In a way, the interface is the digital scholarly edition's new paratext: not exactly part of the edited text itself, it still has an undeniable impact on the way the user reads and understands the edition. This makes the interface an important place for the editor to convey her views on the material.

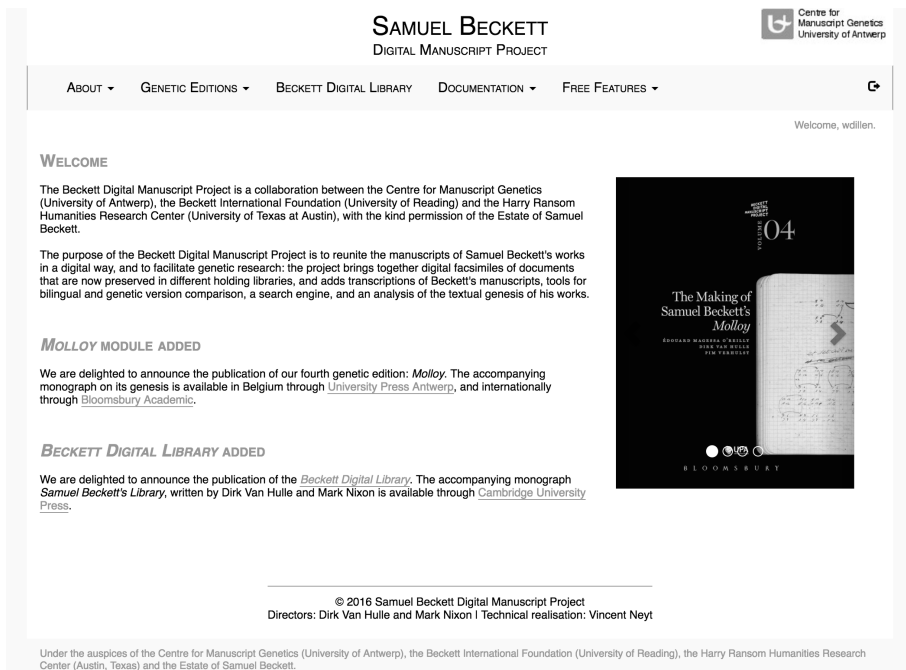


Figure 1: The homepage of the *Beckett Digital Manuscript Project* (BDMP).

## 4 Follow the interface

To illustrate the kind of editorial decisions that may come into play when designing a digital scholarly edition, I will refer to the *Beckett Digital Manuscript Project*, in the following abbreviated to BDMP (see fig. 1),<sup>6</sup> an edition that had its interface redesigned in November 2015 – concurrent with the publication of a new module on Samuel Beckett's play *Krapp's Last Tape / La Dernière bande*. The BDMP is a hybrid genetic scholarly edition of Samuel Beckett's works – hybrid because it combines a digital with a printed component; genetic because it aims to digitally reunite Samuel Beckett's manuscripts and marginalia in view of retracing the author's writing process. Co-headed by Dirk Van Hulle at the University of Antwerp and Mark Nixon at the University of Reading, the project is a collaboration between the Centre for Manuscript Genetics (Antwerp) and the Beckett International Foundation (Reading) realised with the permission of the Estate of Samuel Beckett. Although I was kindly invited to

<sup>6</sup> See: [www.beckettarchive.org](http://www.beckettarchive.org).

Figure 2: The BDMP's image view (Beckett *L'Innommable* MS-HRC-3-10: 01r).Figure 3: The BDMP's image/text view (Beckett *L'Innommable* MS-HRC-3-10: 01r).

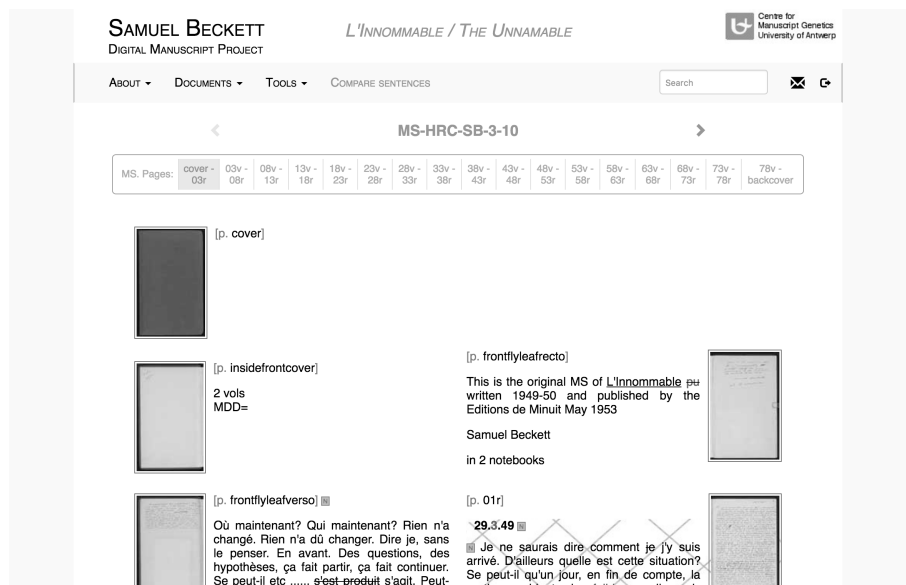


Figure 4: The BDMP's text view (Beckett *L'Innommable* MS-HRC-3-10).

take part in the editorial decision making process while I was working on my Ph.D. dissertation at the CMG, I should point out that the edition's new interface was developed by Vincent Neyt (the project's technical developer), and that the main incentive behind this development was to safeguard the website's performance as the edition continues to expand. Still, at the same time this decision gave the team a great opportunity to rethink the edition's interface from an editorial perspective, and perhaps to improve the way in which the editors used that interface to convey their interpretation of the materials the edition has to offer. Before we can go into detail regarding the way the interface has changed, we should first have a closer look at the basic tools and functionalities the BDMP provides. When you arrive on the BDMP's home page, selecting a *Genetic Edition* in the navigation bar will direct you to a catalogue of the archive's relevant documents (i.e. different draft materials). You can then click on one of those documents to be directed to a document description page, with more information about that document (e.g. on where to find the physical document, what the document contains, and who edited it for the BDMP), as well as a list of thumbnail images representing each page in the document. Clicking on one of those thumbnails in the genetic map directs the user to its facsimile images – to what is called the *image* view (see fig. 2). There, you can take a closer look at the

edition's high-resolution images by selecting the *zoom* view instead. Still, even with this option, Beckett's handwriting can be difficult to decipher. To help the user read the text on the documents, the project therefore also offers an *image/text* view that allows the user to select a zone on the facsimile, hence opening its transcription in a pop-up window (see fig. 3). For this view in particular, the nature of the materials (and specifically, the legibility of their text) determines the extent to which the document is subdivided into zones. For typescripts, for instance, where most of the text is clearly legible, the *image/text* view only offers transcriptions of less legible passages (e.g. deleted text, handwritten additions, or metamarks). Conversely, for drafts that are written entirely in Beckett's hand, this view will offer transcriptions of all the text in the document. For even more ease of reading the text on the documents, the BDMP also offers the user the option to leave the facsimiles altogether, and to read the editor's linear transcription of the entire document in the *text* view instead (see fig. 4). Finally, one of the BDMP's most important features is called the *synoptic sentence* view. By numbering all of the sentences of each work in the XML encoding, the BDMP allows the user to grab any sentence, and generate a chronological list of all versions of that sentence in this view (see fig. 5). That way, the reader can retrace the textual transmission of each individual sentence as it evolves throughout the writing process.<sup>7</sup> From that page, the user can send a request to collate any number of those versions through CollateX (see fig. 6). By grouping together the variant and invariant parts of the sentence, CollateX provides a clear overview of the sentence's genesis that highlights the changes it underwent throughout the writing process.

In these different views, the user also has the possibility to manipulate the visualisation of the transcribed text to some extent, by selecting a tool in the navigation bar. The *place indications* tool conjures more information on where additions are located in the manuscript in the running text of the transcription; *writing tools* helps the user distinguish between the different writing tools that are used in the draft (e.g. different colours of pens, pencils, or typewriter ribbons) – potentially allowing the user to differentiate between individual revision sessions or even hands in the

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<sup>7</sup> As a bilingual author, Samuel Beckett wrote some of his works in English, and others in French. For most of his works, in whatever language the original was written, he himself would later translate it into the other language. As a result, the BDMP's archive of drafts is bilingual too, and the synoptic sentence view offers draft versions of individual sentences in both languages. In other words, in the synoptic sentence view of an individual sentence, you will find its first drafts in English, for example, read how it was copied and modified in subsequent versions up until the moment the text was first published in English, and then see how the sentence was translated in a first French draft, and subsequently modified further up until the moment the text was first published in French. Running all these different versions in different languages through CollateX would be useless, as it would only turn up invariants (as each translated word would be considered a 'variant' to its original). That is why the synoptic sentence view offers the possibility to collate all the different versions of individual sentences in *either* the English or the French text – and never both languages simultaneously.

**SAMUEL BECKETT**  
DIGITAL MANUSCRIPT PROJECT

*L'INNOMMABLE / THE UNNAMABLE: DEMO*

Centre for Manuscript Genetics  
University of Antwerp

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Search

SYNOPTIC SENTENCE VIEW: SENTENCE 9 prev | next

> Compare all French versions of this sentence with CollateX  
 > Compare all English versions of this sentence with CollateX

**Versions**

*L'Innommable* Segment 9, version 1 (MS-HRC-SB-3-10, p. 01r)

Se peut-il qu'un jour, en fin de compte, la pratique aidant, la faiblesse, j'y sois simplement resté, au lieu de sortir, selon ma vieille habitude, passer la journée et une grande partie de la nuit aussi loin que possible de chez moi?

*L'Innommable* Segment 9, version 2 (MS-HRC-SB-3-10, p. frontflyleafverso)

Se peut-il etc .....

*L'Innommable* Segment 9, version 3 (Minuit 1953, p. 7)

Figure 5: The BDMP's *synoptic sentence view* (Beckett *L'Innommable*).

**SAMUEL BECKETT**  
DIGITAL MANUSCRIPT PROJECT

*L'INNOMMABLE / THE UNNAMABLE: DEMO*

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Search

◀ back to Synoptic Sentence View prev | next

**COLLATEX RESULTS: [0009]**

variant, invariant.

☒ Version 1 
 ☒ Version 2 
 ☒ Version 3 
 ☒ Version 4 
 Recollate

Version 1: MS-HRC-SB-3-10	Se peut-il	qu'un jour,	en fin de compte, la pratique aidant, la faiblesse	, j'y sois simplement resté
Version 2: MS-HRC-SB-3-10	Se peut-il	etc .....		
Version 3: MS-1953	Se peut-il	qu'un jour,	premier pas va	, j'y sois simplement resté
Version 4: MS-1971	Se peut-il	qu'un jour,	premier pas va	, j'y sois simplement resté


 Collatex is a software collation tool developed by the Interedition Development Group. Go to <http://collatex.net/> for further information.

Figure 6: The BDMP's implementation of the *CollateX* tool (Beckett *L'Innommable*).

draft; *top layer* deletes all the deletions in the draft, while keeping all the additions – thereby allowing the user to read the final state of the draft’s version, warts and all; and *default transcription* reverts the transcription back to the default settings, without any of these user-generated textual manipulations. Finally, there is also the *compare sentences* tool that visualises the reference numbers for each sentence in the manuscript in the running text of the transcription – and clicking on such a reference number will direct the user to the *synoptic sentence* view.<sup>8</sup>

In the old version of the BDMP, there were two more tools (or rather: *toggles*) the user could use to manipulate the transcription. *Metamarks on/off* allowed her to choose whether or not metamarks were visualised in the transcribed text, and *notes on/off* did the same thing for editorial notes. In the new version of the website, these options are no longer available, and both are always visualised. For *metamarks on/off*, this was because by 2015 these were transcribed more consistently (all metamarks were now transcribed, preferably using standardised HTML entities), and more conventionally (following the 2011 publication of the TEI’s P5 v2.0 guidelines that introduced the `<metamark>` tag, among others).<sup>9</sup> It was argued that especially in a genetic edition, metamarks form an intricate part of the text, and should therefore be present in that text’s transcription. For the notes, these were found inconspicuous and conventional enough not to break the flow of the text, so that providing the option to hide them arguably became dispensable.

With the exception of these last two *toggles*, all the different views and tools were available in both versions of the BDMP’s interface. So what else changed since November 2015? In general, it can be argued that the edition moved towards a more minimal interface – visualising only what is strictly relevant in a given context. This was both beneficial for the overall performance (as it helped solve a great deal of redundancy issues) and also helped the editors take a step back and get out of the user’s way. As Dana Wheelles’ usability study of the *NINES* project’s interface demonstrates, a website’s most attractive features can function as its greatest distractions when they stand in the way of the task at hand. For the *NINES* project for instance, eye-tracking software revealed that after querying the project’s data, the user’s attention was invariably drawn to a tag cloud in the left margin of the screen, rather than to the list of the requested search results that were displayed at the screen’s centre (396; see also 397 fig. 4). This led the project’s developers to remove the tag cloud from the search page altogether, as well as from other pages where it may be considered a distraction (398). This is a good argument against sacrificing too much screen real estate to what

<sup>8</sup> Alongside these tools that manipulate the rendition of the text’s transcription, the BDMP also offers other functionalities, such as a search bar, a button to leave a comment on the transcription of any document page in the archive, or the option to visualise the document’s XML encoding.

<sup>9</sup> Making the XML transcriptions of the BDMP’s documents more conventional and consistent like this involved some minimal retroactive updating of the transcription files.





Figure 7: The *quick links* as they appeared in the BDMP before the interface was redesigned in 2015 (Beckett *Stirrings Still* MS-UoR-2933-1: 1r).

are essentially popular, flashy gimmicks: by removing these unnecessary distractions from the page, the user can focus on the materials themselves, and become more immersed in the edition's core features.

At the same time, the user will, of course, need to know what the edition is capable of, if she wants to take full advantage of the tools the edition has to offer. Attending to this matter, the BDMP offers a link in its menu bar to the edition's documentation that explains how the user can view and manipulate the data. Still, as I already suggested in the previous section, editors should not take for granted that the users of their editions will actually start to read this information – let alone that they read *all* of it. Instead, it is essential to make sure that the edition's most important features are readily available to the user. In the BDMP's old version, this was what the *quick links* section was for (see fig. 7). On each of the different views, a number of buttons were displayed at the right hand side of the screen at a fixed height, staying put when the user scrolled down to the bottom of the page. The buttons were partly hidden: the first few letters of each button's caption were shown, but the rest seemed to be falling off the screen. When the user hovered over the buttons, an animation made

them expand until their entire title was visible. Clicking on one of the buttons would activate it, as indicated by a check mark that appeared right under the button's title, and remained visible when the button receded again. Exactly which of these buttons were available at a given time depended on how relevant they were for the view the user consulted.

As a more document-oriented visualisation, the edition's *image*, *zoom image*,<sup>10</sup> and *image/text* views only offered quick links for the *search* and *compare sentences* functionalities. As a more text-centred visualisation, the *text* view, on the other hand, also offered quick links to the tools that allowed the user to manipulate (or reset) the transcribed text: *default transcription*, *place indications*, *writing tools*, and *top layer*. The *synoptic sentence* view, finally, offered quick links to all of these tools, except for the *compare sentences* tool, of course, because all the sentence versions in this view essentially have the same reference number (which is also referenced at the top of the page). To some extent, we can already see the *faint voice* of the Virgilian editor here. When the user was exploring the edition's documents on her own, the quick links blended into the edition's background (even using a similar background colour), retreating to the margins of the screen where they took up as little space as possible, giving the reader the opportunity to do her research without any unnecessary distractions. But when she required them, these editorial suggestions were right at her fingertips, ready to materialise in front of her eyes, filled with links to relevant tools and ways to manipulate the text to suit her needs. And, crucially, all of this was possible without navigating away from the page that caught the user's attention – allowing the editor to draw her further into the edition, instead of leading her out of the maze like Ariadne would.

But still, the mere presence of these buttons (partly concealed as they may have been) could have been a distraction to the user, tempting her to focus not on the text, but on the tools she could use to manipulate the text. And although the availability of specific quick links was related to their relevance to a specific view, it didn't make the available links any less redundant. In each of the views, all of these tools (even the less relevant ones) could also be activated in the menu bar (see fig. 8) at the top of the page – making the quick-linked tools available in two different places at once, which may confuse rather than help the user. These are some of the reasons why the quick links have disappeared in the new version of the BDMP's interface. The reason

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<sup>10</sup> The fact that the *image* and *zoom image* views enabled the option to *compare sentences* is counterintuitive because these views did not offer any transcriptions that could be manipulated in the first place. Clicking on the link would, therefore, involve a double transformation, where the user was first directed to the *image/text* view and the *compare sentences* would subsequently be automatically activated there. This functionality has been removed from the new version of the BDMP's interface. The user now has to move to the *image/text* view herself to activate the *compare sentences* functionality, making her more aware of what is happening, and how she is manipulating the edition.

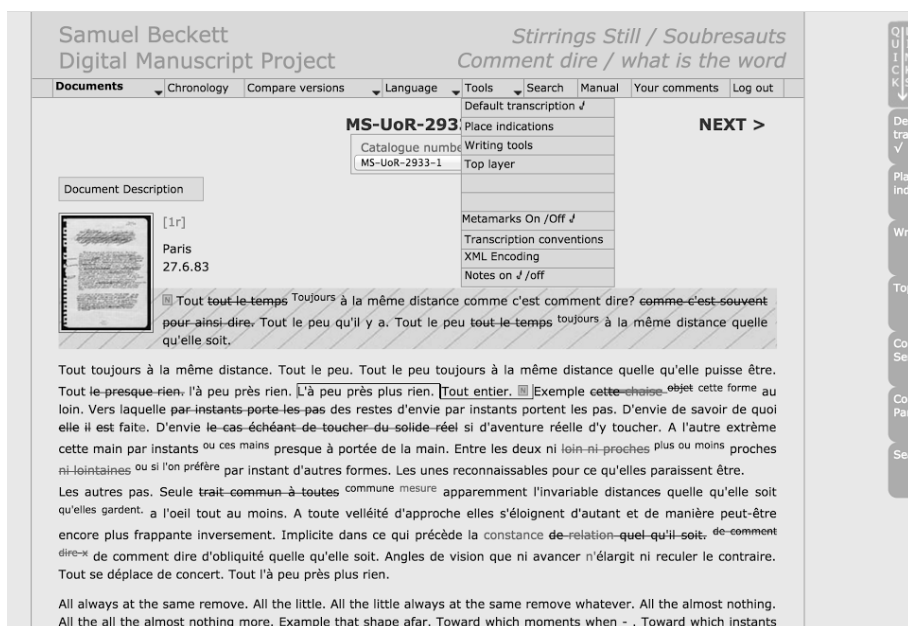


Figure 8: An example of the BDMP's menu structure before the interface was redesigned in 2015 (Beckett *Stirrings Still* MS-UoR-2933-1: 1r.).

why they existed in the first place is mainly because the tools they linked to were hidden in submenus and sub-submenus – places where the user is less likely to find them. This made some of the edition's most powerful tools invisible for the user at first sight. In the BDMP's new interface, this problem has been solved in a different way. Here, the menu bar itself has become more modular, adapting itself to the tools and functionalities that are relevant to the specific document the user is studying, and to the view she has chosen to do so. In other words, tools that are impossible to use in a given view (e.g. the *top layer* tool in a transcription-less view like the *image* view) are no longer available to the user. This has helped make the edition's functionalities more transparent by drastically reducing the number of (sub)menus in any given view, allowing for a more accessible and intuitive navigation through and manipulation of the documents and their texts by the user.<sup>11</sup>

<sup>11</sup> For full disclosure, it should be stated that there are also tools that are only available for specific documents (rather than *views*). While working on a new *genetic edition*, the editors will assess how relevant and manageable specific tools and functionalities are for the documents in that edition. When the manuscripts of a given edition are especially difficult to read (as in the case of Beckett's final work

This arguably makes the interface less distracting, as tools and options only start to appear and become more and more prominent as the user moves deeper into the edition and, thus, may need more guidance. As such (connecting this description of the BDMP's new interface back to our Dantesque allegory), the Virgilian editor's voice becomes louder as the user travels deeper into the edition. At the same time, it is of course important to remember that the editor is always there, even in those views where there are only few tools at the user's disposal. Restricting the user's options is as much an editorial decision as expanding them would be. In the same way, highlighting some aspects of the edition over others in the interface can be a powerful way of guiding the reader through the available materials.

## 5 The power of suggestion

Another place in which the editor can highlight those aspects of the edition's materials that she finds particularly interesting is the search area. Perhaps one of the greatest advantages digital texts have over their printed counterparts is that they are so effortlessly searchable. Once it is transcribed and indexed, the text as dataset can be queried at the user's request, offering a list of results that is only mildly inconvenienced by factors like difficulty of handwriting and the complexity of the materials. What can be more difficult, however, is finding the *right* result in the list. To facilitate this, digital scholarly editions (like most websites) may offer advanced search options that help the user adjust the granularity of her search. The same holds true for the BDMP: at the edition's search page,<sup>12</sup> the user can narrow down the list of possible answers by specifying the work to which the query pertains, or even whether it should occur in an addition, deleted passage, or doodle description. But the editor

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*what is the word*, for instance), the project may also offer a *topographical* view. This view erases traces of the author's handwriting and superimposes a transcription of those traces on the surface of the document instead – what Paulo D'Iorio has called an “ultra-diplomatic” transcription (52). Additionally, when the *topographical* view is available for a specific document, it is also possible to combine it with the *zoom* view in what is called the *topographical zoom* view. Rather than lifting the text off the document, this view leaves the author's original writing traces intact, but allows the user to read the editor's ultra-diplomatic transcription through the *zoom* view's magnifying glass. Or, for editions where the act of translation has become an intricate part of the work's writing process (as in the case of Beckett's late short prose text *Stirrings Still* / *Soubresauts*, for instance), additional *language* options may be made available – such as the *bilingual comparison* tool that highlights translation variants between English and French versions of individual sentences. In the old version of the BDMP's interface, these different views and tools were all present at all times in the edition's (sub)menu structure – even if it was impossible to use them on the document in question. By removing these tools from the default navigational menu and only conjuring them in those cases where they can actually be used, the BDMP's new modular menu structure helped remove a lot of nav-bar clutter, allowing for a more intuitive and less confusing interaction with the edition's data.

<sup>12</sup> See: [www.beckettarchive.org/search](http://www.beckettarchive.org/search).

can do even more: through a list of suggested searches, she can guide the user to those passages in the documents that are especially relevant to her interpretation of the edition's materials. As a genetic edition, the BDMP wants to direct its users to the edition's genetic features – which is exactly what the *suggested searches* area will focus on. There, the user can request lists of all the doodles, intertextual passages, transpositions, dates, metamarks, and textual lacunae in any or all of the edition's modules. This can be a subtle but persuasive way to help the user get a better grasp on the complexity of the edition's data.

This method of filtering the data in such a way that it helps the user find what she is looking for has been especially useful for one of the BDMP's more recent editions called *Samuel Beckett's Personal Library*. This edition adds a more explicitly exogenetic<sup>13</sup> dimension to the BDMP by linking the geneses of Beckett's individual works to the sources he consulted while he was writing them. Projects like this which attempt to digitise a canonical author's personal library for exogenetic purposes are often met with two basic, intuitive criticisms. Experience tells us that the reading behaviour that is implied by someone's personal library is often too inclusive (we have not always read all the books we own), while, at the same time, it may not be exhaustive enough (we do not always own all the books we have read). In its *Library* module, the BDMP aims to address both these problems.

The first problem, which argues that personal libraries can be too inclusive, is addressed in the module's *extant library*. This part of the edition combines (1) scans of the books in Beckett's personal library, located in Paris; (2) scans of the books that were donated to the collection of the Beckett International Foundation at the University of Reading shortly before Beckett's death; and (3) whenever possible, scans of books that were donated to third parties during Beckett's lifetime. Here, the BDMP tries to focus on those books Beckett actually read by dedicating special attention to the reading traces that can be found in Beckett's books. In 2006, the directors of the BDMP were granted access to Beckett's personal library in Paris, to make scans of the covers of all the books in the library, as well as of all the pages that contained reading traces. This limitation of the scanned materials was partly a pragmatic choice (scanning all of the pages of over 700 books in the library within the limited timeframe would prove impossible), but also a methodological one, as the marginalia and other reading traces constitute the only substantial type of evidence we have of Beckett's interaction with his source materials.

The second problem, arguing that personal libraries are usually not exhaustive enough, is addressed in the module's *virtual library*, which aims to reconstruct a list of books Beckett is likely to have read, but which no longer feature in his personal library.

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<sup>13</sup> "Exogenetics designates any writing process devoted to research, selection, and incorporation, focused on information stemming from a source exterior to the writing" (de Biasi 43–44).

Here, of course, the difficulty lies in determining which books – and, more specifically, which editions of these books – Beckett may have had access to. Nevertheless, a lot of research has already been conducted in this respect, which can help us compile a list of possible candidates. For her Ph.D. dissertation, my former colleague Veronica Bălă did just that, drawing up a hypothetical list of books Beckett is likely to have read while he was a student at Trinity College Dublin, on the basis of earlier research, an authoritative biography, Beckett's letters, reading notes, and the original TCD college calendars with Beckett's required reading lists (Bălă). With an additional 250 books, this virtual student library can function as an important resource for further exogenetic research on Beckett's works.

Adding up to a total of over a thousand books, many of which include a variety of marginalia and other reading traces, browsing *Samuel Beckett's Personal Library* can be quite daunting. That is why it is especially important to offer the user some guidance in her quest for a specific (type of) book in the module. Is she looking for any book, or only for extant ones? And in which period in Beckett's lifetime is she particularly interested? To this end, the module's navigation can already offer some solace. There, she can move from the complete library to its subsection with Beckett's *student library* – and as more research is conducted in this respect, more of these subsections could arise. Once in the *student library*, the user has the possibility to further specify the parameters of her search, by toggling the *virtual library* section on or off. Since the editors of the BDMP suspect that the edition's users will mostly use the *Library* to look for passages in Beckett's books that contain reading traces of some sort, the module's navigation also offers some material-based subsections, rather than period-based subsections. By clicking on *reading traces*, for instance, the user can narrow the list down to the 114 books in the library that contain reading traces – excluding virtual books and books of which only scans of the cover are available to the BDMP. Or the list can be narrowed down even further to only display only those 90 books in the *Library* that contain *marginalia* – the books in which Beckett has actually written something (excluding those books that only contain material reading traces, like tears or dog ears). A similar approach has also been adapted for the module's search engine. Starting from the supposition that the user will be looking *either* for a specific book *or* for a reading trace inside a book, a drop-down menu has been installed next to the search bar that allows the user to narrow down her query and search for a string in the module's bibliography, reading traces, or marginalia. After selecting a book, the user can use a similar tool to search for a string inside that book *alone*. These are all options that help the user filter the results of her query, letting the editor guide her towards those aspects of the edition she might be looking for.

But the editor's guidance can be even more useful when the *Library* starts to interact with the BDMP's other modules. A good example of how this may work is when

Beckett uses a quote from one of the books in his library (Kant's complete works) in his drafts of *L'Innommable*. In their monograph *Samuel Beckett's Library*, Van Hulle and Nixon refer to a letter Beckett wrote to Arland Usher to argue that he read the introduction of the last volume of this work in the first half of 1938 (137–138). In that introduction, it is explained that the anonymous motto of Kant's *Critique of Pure Reason* – “De nobis ipsis silemus” – was borrowed from a work by Francis Bacon (Kant 5). As the *Library* module shows, this citation is marked with a pencil mark in the margin in Beckett's personal copy of the work, suggesting that it caught his attention. As Van Hulle and Nixon suggest, this motto made quite an impression on Beckett, who often came back to it both in his writing and in his personal correspondences (138). So, too, while he was writing the first draft of *L'Innommable* where he copies the motto and the reference to the original (Bacon's *Novum Organon*) in the inside of the draft notebook's cover (MS-HRC-SB-3-10, insidebackcover). Afterwards, Beckett uses the quote in the novel's text itself (MS-HRC-SB-3-10, 44v), and keeps it there in all of the work's subsequent versions, including the author's translation of the work into English. Having found this direct link between Beckett's source materials and his drafts, Dirk Van Hulle decided to link these documents together by providing hyperlinks in the editorial notes that accompany their transcription. As such, the user may follow the editor's macrogenetic hypothesis by means of a hypertextual path in the edition.

I think this comes close to what Dahlström was talking about when he called for editors to leave Ariadne's threads in their editions to guide their users through the materials they have to offer. These threads become the traces of the editor's interpretation of those source materials that the user can choose to follow from one document to the next. Of course, these explicit links make the editor very *visible* again – and Virgil's voice becomes about as loud as it gets. But I would argue that the editor's distinct presence is not necessarily a problem here, because at this point (and especially when she is going through Beckett's personal library to look for marginalia) the user is already engaging with the materials on a high level. Thus, the editor's increased presence and guidance will only help to draw her even further in and encourage her to engage not only with the documents, but also with the links between them: links that, in this case, are based on the editor's interpretation as a genetic critic and that can then be assessed by the critical user in a very direct way, by interacting with the data through the edition's interface.

## 6 Conclusion

As this introduction to the BDMP and its Graphical User Interface has demonstrated, there are many different ways of guiding the user through the edition, all with

different degrees of editorial presence and regulation. And it is exactly this guidance that constitutes one of the core tasks of the scholarly editor. In her recent publication *Maschinenlesbar–menschlesbar. Über die grundlegende Ausrichtung der Edition*, Inga Hanna Ralle argues that the editor's task is not only to acquire knowledge about and new insights into the materials in the edition, but also to *actively direct* the reader's developing understanding about those materials:<sup>14</sup>

Es lässt sich festhalten, dass der Editor nicht nur sein Fachwissen einsetzt, um neues Wissen und Erkenntnisse zu erarbeiten, sondern auch um die Aufmerksamkeit, das Leseverhalten und Verständnis des Lesenden aktiv zu leiten. Der Editor fungiert demnach als Wegweiser für den Leser, was explizit nicht als Bevormundung verstanden wird, sondern als Angebot und Vorarbeit. (Ralle 179)<sup>15</sup>

While this passage was quoted from a section that focussed on the print edition, it is easy to see how Ralle's argument may apply to scholarly editing in general, regardless of the medium in which the scholarship and edited text(s) are presented. And indeed, as Ralle concludes in the very last sentence of her paper, it is important to keep in mind that the presentation level plays the same, crucial role in all scholarly editions regardless of their medium and that it should, therefore, be taken into account from the outset of the editing project (156).<sup>16</sup> In this case, the change to a different medium simply means that different methods and tactics need to be devised and employed to fulfil this fundamental task in the field of scholarly editing. Both in print and in the digital medium, this mostly comes down to a combination of layout (or design) and paratext. And in the digital paradigm, it is the GUI that has taken over this essential editorial function and that has, therefore, also become a place for the editor to make her case about the materials she wants to disseminate.

The temptation here is to shower the user with possibilities, to try to cater to her every need, and to make all these different options available to her at all times. Because how else is she going to discover and take advantage of all the tools and information you have put in your edition, right? Based on my experience working at the University of Antwerp's *Centre for Manuscript Genetics*, however, I would argue that this is a temptation that we, as editors, must try to resist. I have referred to Dana

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<sup>14</sup> In Ralle's terminology, it is the *editorial narrative* that actively directs the reader's understanding ("editorisches Narrativ"; Ralle 152); or, in terms that were used earlier on in this paper, that makes the argument about the materials the edition encompasses.

<sup>15</sup> Translation by the author: "It can be said that the editor not only uses his or her expertise to develop new knowledge and insights, but also to actively guide the reader's attention, reading behaviour and understanding. The editor therefore acts as a guide for the reader, which is explicitly not understood as paternalism, but as an offer and preliminary work."

<sup>16</sup> "Wichtig ist die Erkenntnis, dass die Präsentationsebene für Editionen aller Medien die gleiche relevante Rolle spielt und dass sie von Anfang an mitgedacht werden sollte" (Ralle 156).



Wheeler's user study in this regard to argue that redundancy in the GUI is more often a distraction than a help. In her paper on reader roles, Rasmussen makes a similar case when she argues that

[t]he urge to click can easily become too tempting to resist, if we are cognitively or perceptually stimulated with possibilities that seem more exciting than what we are presently focused on. Knowledge sites have a wealth of potentials that can risk disrupting our phenomenological preoccupation with them, thereby limiting the possibility of hermeneutical reflection. (Rasmussen 131)<sup>17</sup>

It is this overstimulation that I have tried to counteract by introducing the concept of the Virgilian editor. Always present behind the scenes of the interface, she knows exactly when to step out onto the stage to direct the user's attention to a specific feature in the edition, and to explicate her interpretation of the materials the user is studying. This is, of course, no mean feat, and the editor's success in this regard should ideally be constantly re-evaluated by interacting with actual users. But therein lies the art of editing: in not just blindly copying culturally significant documents, but consciously determining how best to present those materials to the reader as well. In the end, digital scholarly editions should not just be machine-readable – if that were the case, we would indeed only need to provide a dataset, and possibly develop an API for accessing and reusing those data. Instead, the edition needs to be human-readable too: to convince a human readership of the cultural significance of those documents; to develop the reader's understanding of those documents by conveying her interpretation of their peculiarities; and hopefully to encourage the reader to be critical of that interpretation and to arrive at her own explanations. Achieving this in the digital medium means designing a GUI around our edited data with at least as much care and guidance as we did with the printed book.

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<sup>17</sup> Rasmussen borrowed this concept of the *urge to click* from Anne Mangen's *Hypertext Fiction Reading: Haptics and Immersion* (2008).

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<sup>18</sup> This paper refers to a number of talks that were delivered at the *Digital Scholarly Editions as Interfaces* that took place at the Karl-Franzens University in Graz on 23–24 September 2016 (see: Andrews and van Zundert; Hadden; Porter; and Robinson). The abstracts for these talks can be consulted online via the following link: [static.uni-graz.at/fileadmin/gewi-zentren/Informationsmodellierung/PDF/dse-interfaces\\_BoA21092016.pdf](http://static.uni-graz.at/fileadmin/gewi-zentren/Informationsmodellierung/PDF/dse-interfaces_BoA21092016.pdf).

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